



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address COMMISSIONER FOR PATENTS
P.O. Box 1456
Alexandria, Virginia 22303-1456
www.uspto.gov

APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO	CONFIRMATION NO
10 031,766	01 23 2002	Roland Treutlein	WET 0106 PUS	8455

7590 07 08 2003
Robert P Renke
Artz & Artz
28333 Telegraph Road Suite 250
Southfield, MI 48034

EXAMINER

NGUYEN, CHAU N

ART UNIT	PAPER NUMBER
----------	--------------

2831

DATE MAILED: 07 08 2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/031,766

Applicant(s)

TREUTLEIN ET AL.

Examiner

Chau N Nguyen

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 23 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 46-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 46-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 46-55 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification, as originally filed, does not provide support for the claimed subject matter of "said composite film sealingly engaging one side of a function element" as claimed in claim 46. Specifically, as disclosed and shown, the function element is interposed between the multi-layered laminated films, but not the composite film which includes at least 3 multi-layered laminated films engaging one side of the function element.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 46-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahigashi et al. (JP5-314824).

JP'824 discloses a halogen-free composite film comprising at least 2 sealable, multi-layered laminated films, each laminated film comprising a first film (4), a second film (5) and a laminating adhesive (6,7) between the first and second films, a functional element (1) being interposed between the multi-layered laminated films. JP'824 also discloses the function element being a metallic conductor, and each laminated film being identical to one another.

JP'824 does not specifically disclose the composite film comprising at least 3 to N multi-layered laminated films. However, it would have been obvious that depending on the specific use of the resulting composite film such as interposing another function element between the laminated films, one skilled in the art would provide the composite film of JP'824 with at least 3 multi-layered laminated films since it has been held that merely duplicating the essential working part, the laminated film, of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor

and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 49-52 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'824 in view of Hake et al. (5,861,578).

JP'824 discloses the invention as claimed except for the second film of each laminated film comprising a thermally activated substance which can be polyesters (re claims 49 and 54), and the adhesive being polyurethanes (re claims 51 and 52). Hake et al. discloses a cable comprising a laminated structure (16,18,20), wherein the second layer (16) of the laminate comprising polyester and the middle layer of the laminate comprising polyurethane (col. 3, lines 63-67). It would have been obvious to one skilled in the art to use polyesters for the second film and polyurethanes for the adhesive layer of each laminated film of JP'824 since these material are known in the art for being used to cover metallic conductor as taught by Hake et al.

It would also have been obvious to one skilled in the art to use polyamide films for the first and second films of each laminated film of JP'824 since

polyamide film is known in the art for being used to cover metallic conductors as taught by Hake et al. (re claim 50).

4. Claims 53 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'824 in view of Hols (6,071,551).

The modified JP'824 composite film discloses the invention substantially as claimed. JP'824 does not disclose the wet application weight of the laminating adhesive being 2 g/m^2 to 40 g/m^2 (re claim 53). Hols discloses an invention relating to a laminate structure, wherein a mixture was applied to a base layer in a wet application weight of 5 g/m^2 . It would have been obvious to one skilled in the art to apply the teaching of Hols in the each laminated film of JP'824 to increase the moisture resistance of the laminated film.

Re claim 56, JP'824 discloses an inherent method of making the composite film, comprising applying an adhesive to a first film (4) of a first laminated film, joining the second film (5) to the adhesive to form the first laminated film, thereafter providing a function element between the first film and a second laminated film produced in the same way as the first laminated film. In other words, JP'824 discloses the complex first and second tapes (2) being formed first,

then thereafter bonding the tapes on the upper as well as the lower parts of the conductors.

JP'824 does not disclose drying the first film in a drying tunnel at temperatures from about 80 degrees C to 180 degrees C, nor curing the laminating adhesive. Hols discloses that the adhesive layer was applied to the base layer and then the layer was subjected to a heating temperature of 80 degrees C to dry and cure the adhesive (col. 4, lines 60-63). It would have been obvious to one skilled in the art to dry the adhesive of JP'824 at a temperature of 80 degrees C before applying the second film to cure the adhesive as taught by Hols.

5. Claim 55 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP'824 in view of Escallier et al.

Claim 55 additionally recites the first and second films, each having a thickness of 10 μm to 100 μm . Escallier et al. discloses a composite film comprising at least two laminated films, each having a first film and a second film, each having a thickness of from 10 μm to 100 μm . It would have been obvious to one skilled in the art to use the thickness as taught by Escallier for the first and second films of JP'824 to meet the specific use of the resulting composite film

since it is well-known in the art that using thinner film would provide a highly flexible composite film.

6. Claims 57, 58 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'824 in view of Hols as applied to claim 56 above, and further in view of Hake et al.

The combination of JP'824 and Hols discloses the invention substantially as claimed including the second film being coated with a substance. Hake et al. discloses a cable comprising a laminated structure (16,18,20). Hake et al. discloses that polyurethane (col. 3, lines 63-67) is known in the art for being used to cover metallic conductor. It would have been obvious to one skilled in the art to use polyurethanes for the coating substance of JP'824 since polyurethane is known in the art for being used to cover metallic conductor as taught by Hake et al. (re claims 57 and 61).

It would also have been obvious to one skilled in the art to use polyamide films for the first and second films of each laminated film of JP'824 since polyamide film is known in the art for being used to cover metallic conductors as taught by Hake et al. (re claim 58).

7. Claims 59, 60 and 62-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'824 in view of Hols as applied to claim 56 above and further in view of Escallier et al.

The combination of JP'824 and Hols discloses the invention substantially as claimed including the wet application weight of the laminating adhesive being 2 g/m² to 40 g/m² (re claim 60). The modified JP'824 does not disclose the laminating adhesive being acrylates (re claim 59), nor the first and second films each having a thickness of from 10 µm to 100 µm (re claim 62).

Escallier et al. discloses a composite film comprising acrylates as laminating adhesive and each of the first and second films having a thickness of 10 µm to 100 µm. It would have been obvious to one skilled in the art to use acrylates for the laminating adhesive of JP'824 since acrylates is known for being used in a composite film as taught by Escallier et al. It would also have been obvious to one skilled in the art to use the thickness as taught by Escallier et al. for the first and second films of JP'824 to meet the specific use of the resulting composite film since it is well-known in the art that using thinner film would provide a highly flexible composite film.

Re claims 63 and 64, the modified JP'824 composite film does not disclose a vacuum deposited copper as the functional element. However, it would have been

obvious to one skilled in the art to use a vacuum deposited copper layer as the function element in the cable of JP'824 since a cable comprising a vacuum deposited copper layer as the function element is known in the art.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N Nguyen whose telephone number is 308-0693. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (703) 308 3682. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305 3432 for regular communications and (703) 305 1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Application/Control Number: 10/031,766
Art Unit: 2831

Page 11

A handwritten signature in black ink, appearing to read "Chau N Nguyen", with a stylized flourish at the end.

Chau N Nguyen
Primary Examiner
Art Unit 2831

CN
July 4, 2003